



OIPE

ENTERED

RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/077,383

DATE: 07/23/2002

TIME: 13:06:17

Input Set : A:\-17-1.app

Output Set: N:\CRF3\07232002\J077383.raw

```

3 <110> APPLICANT: Haydock, Paul V.
4   U'Ren, Jack
5   Saigene Corporation
7 <120> TITLE OF INVENTION: Nucleic Acid Amplification Using an RNA Polymerase and
8   DNA/RNA Mixed Polymer Intermediate Products
10 <130> FILE REFERENCE: 018048-001710US
12 <140> CURRENT APPLICATION NUMBER: US 10/077,383
13 <141> CURRENT FILING DATE: 2002-02-15
15 <150> PRIOR APPLICATION NUMBER: US 60/296,812
16 <151> PRIOR FILING DATE: 2001-06-07
18 <160> NUMBER OF SEQ ID NOS: 33
20 <170> SOFTWARE: PatentIn Ver. 2.1
22 <210> SEQ ID NO: 1
23 <211> LENGTH: 23
24 <212> TYPE: DNA
25 <213> ORGANISM: Artificial Sequence
27 <220> FEATURE:
28 <223> OTHER INFORMATION: Description of Artificial Sequence:T7
29   phage-encoded RNA polymerase (RNAP) recognition
30   sequence
32 <400> SEQUENCE: 1
33 taatacgact cactataggg aga
36 <210> SEQ ID NO: 2
37 <211> LENGTH: 23
38 <212> TYPE: DNA
39 <213> ORGANISM: Artificial Sequence
41 <220> FEATURE:
42 <223> OTHER INFORMATION: Description of Artificial Sequence:SP6
43   phage-encoded RNA polymerase (RNAP) recognition
44   sequence
46 <400> SEQUENCE: 2
47 atttaggtga cactatagaa gaa
50 <210> SEQ ID NO: 3
51 <211> LENGTH: 23
52 <212> TYPE: DNA
53 <213> ORGANISM: Artificial Sequence
55 <220> FEATURE:
56 <223> OTHER INFORMATION: Description of Artificial Sequence:T3
57   phage-encoded RNA polymerase (RNAP) recognition
58   sequence
60 <400> SEQUENCE: 3
61 aattaaccct cactaaaggg aga
64 <210> SEQ ID NO: 4

```

23

23

23

RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/077,383

DATE: 07/23/2002

TIME: 13:06:17

Input Set : A:\-17-1.app

Output Set: N:\CRF3\07232002\J077383.raw

```

65 <211> LENGTH: 23
66 <212> TYPE: DNA
67 <213> ORGANISM: Artificial Sequence
69 <220> FEATURE:
70 <223> OTHER INFORMATION: Description of Artificial Sequence:K11
71     phage-encoded RNA polymerase (RNAP) recognition
72     sequence
74 <400> SEQUENCE: 4
75 aattagggca cactataggg aga                23
78 <210> SEQ ID NO: 5
79 <211> LENGTH: 20
80 <212> TYPE: DNA
81 <213> ORGANISM: Artificial Sequence
83 <220> FEATURE:
84 <223> OTHER INFORMATION: Description of Artificial Sequence:(A)-12-20
85     homopolymer spacer sequence
87 <220> FEATURE:
88 <221> NAME/KEY: modified_base
89 <222> LOCATION: (13)..(20)
90 <223> OTHER INFORMATION: a at positions 13-20 may be present or absent
92 <400> SEQUENCE: 5
93 aaaaaaaaaa aaaaaaaaaa                20
96 <210> SEQ ID NO: 6
97 <211> LENGTH: 20
98 <212> TYPE: DNA
99 <213> ORGANISM: Artificial Sequence
101 <220> FEATURE:
102 <223> OTHER INFORMATION: Description of Artificial Sequence:(T)-12-20
103     homopolymer spacer sequence
105 <220> FEATURE:
106 <221> NAME/KEY: modified_base
107 <222> LOCATION: (13)..(20)
108 <223> OTHER INFORMATION: t at positions 13-20 may be present or absent
110 <400> SEQUENCE: 6
111 tttttttttt tttttttttt                20
114 <210> SEQ ID NO: 7
115 <211> LENGTH: 20
116 <212> TYPE: DNA
117 <213> ORGANISM: Artificial Sequence
119 <220> FEATURE:
120 <223> OTHER INFORMATION: Description of Artificial Sequence:(C)-12-20
121     homopolymer spacer sequence
123 <220> FEATURE:
124 <221> NAME/KEY: modified_base
125 <222> LOCATION: (13)..(20)
126 <223> OTHER INFORMATION: c at positions 13-20 may be present or absent
128 <400> SEQUENCE: 7
129 cccccccccc cccccccccc                20
132 <210> SEQ ID NO: 8

```

RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/077,383

DATE: 07/23/2002

TIME: 13:06:17

Input Set : A:\-17-1.app

Output Set: N:\CRF3\07232002\J077383.raw

```

133 <211> LENGTH: 20
134 <212> TYPE: DNA
135 <213> ORGANISM: Artificial Sequence
137 <220> FEATURE:
138 <223> OTHER INFORMATION: Description of Artificial Sequence:(G)-12-20
139     homopolymer spacer sequence
141 <220> FEATURE:
142 <221> NAME/KEY: modified_base
143 <222> LOCATION: (13)..(20)
144 <223> OTHER INFORMATION: g at positions 13-20 may be present or absent
146 <400> SEQUENCE: 8
147 gggggggggg gggggggggg                20
150 <210> SEQ ID NO: 9
151 <211> LENGTH: 20
152 <212> TYPE: DNA
153 <213> ORGANISM: Artificial Sequence
155 <220> FEATURE:
156 <223> OTHER INFORMATION: Description of Artificial Sequence:(XY)-n spacer
157     sequence
159 <220> FEATURE:
160 <221> NAME/KEY: modified_base
161 <222> LOCATION: (13)..(20)
162 <223> OTHER INFORMATION: n at positions 13-20 may be present or absent
164 <220> FEATURE:
165 <221> NAME/KEY: modified_base
166 <222> LOCATION: (1)..(20)
167 <223> OTHER INFORMATION: n = a, g, c or t, where positions 1, 3, 5, 7, 9, 11,
168     13, 15, 17 and 19 = X and positions 2, 4, 6, 8, 10,
169     12, 14, 16, 18 and 20 = Y, in the formula (XY)-n, and
170     where X and Y are independently selected from a, g, c
W--> 171     or t, and X and Y are not the same
173 <400> SEQUENCE: 9
W--> 174 nnnnnnnnnn nnnnnnnnnn                20
177 <210> SEQ ID NO: 10
178 <211> LENGTH: 16
179 <212> TYPE: DNA
180 <213> ORGANISM: Artificial Sequence
182 <220> FEATURE:
183 <223> OTHER INFORMATION: Description of Artificial Sequence:spacer sequence
185 <400> SEQUENCE: 10
186 aaaggaaga qaqagq                16
189 <210> SEQ ID NO: 11
190 <211> LENGTH: 15
191 <212> TYPE: DNA
192 <213> ORGANISM: Artificial Sequence
194 <220> FEATURE:
195 <223> OTHER INFORMATION: Description of Artificial Sequence:spacer sequence
197 <400> SEQUENCE: 11
198 cttttttttt ttccc                15

```

RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/077,383

DATE: 07/23/2002

TIME: 13:06:17

Input Set : A:\-17-1.app

Output Set: N:\CRF3\07232002\J077383.raw

```

201 <210> SEQ ID NO: 12
202 <211> LENGTH: 8
203 <212> TYPE: DNA
204 <213> ORGANISM: Artificial Sequence
206 <220> FEATURE:
207 <223> OTHER INFORMATION: Description of Artificial Sequence:spacer sequence
209 <400> SEQUENCE: 12
210 gcgcccgc 8
213 <210> SEQ ID NO: 13
214 <211> LENGTH: 8
215 <212> TYPE: DNA
216 <213> ORGANISM: Artificial Sequence
218 <220> FEATURE:
219 <223> OTHER INFORMATION: Description of Artificial Sequence:spacer sequence
221 <400> SEQUENCE: 13
222 atttaatt 8
225 <210> SEQ ID NO: 14
226 <211> LENGTH: 9
227 <212> TYPE: DNA
228 <213> ORGANISM: Artificial Sequence
230 <220> FEATURE:
231 <223> OTHER INFORMATION: Description of Artificial Sequence:spacer sequence
233 <400> SEQUENCE: 14
234 caaacccaa 9
237 <210> SEQ ID NO: 15
238 <211> LENGTH: 11
239 <212> TYPE: PRT
240 <213> ORGANISM: Artificial Sequence
242 <220> FEATURE:
243 <223> OTHER INFORMATION: Description of Artificial Sequence:RNA polymerase
244 (RNAP) active site consensus sequence
246 <220> FEATURE:
247 <221> NAME/KEY: MOD_RES
248 <222> LOCATION: (2)..(8)
249 <223> OTHER INFORMATION: Xaa = any amino acid
251 <400> SEQUENCE: 15
W--> 252 Lys Xaa Xaa Xaa Xaa Xaa Xaa Xaa Tyr Gly Ser
253 1 5 10
256 <210> SEQ ID NO: 16
257 <211> LENGTH: 60
258 <212> TYPE: DNA
259 <213> ORGANISM: Artificial Sequence
261 <220> FEATURE:
262 <223> OTHER INFORMATION: Description of Artificial Sequence:AMP010
263 Amplification Primer
265 <400> SEQUENCE: 16
266 aatttaatac gactcactat agggagagag agagagagac tcctaaagtc actcctaacg 60
269 <210> SEQ ID NO: 17
270 <211> LENGTH: 61

```

RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/077,383

DATE: 07/23/2002

TIME: 13:06:17

Input Set : A:\-17-1.app

Output Set: N:\CRF3\07232002\J077383.raw

```

271 <212> TYPE: DNA
272 <213> ORGANISM: Artificial Sequence
274 <220> FEATURE:
275 <223> OTHER INFORMATION: Description of Artificial Sequence:AMP011
276     Amplification Primer
278 <400> SEQUENCE: 17
279 aatttaatac gactcactat agggagagag agagagagag ctattcgccg tgtccctctc 60
280 g                                                                    61
283 <210> SEQ ID NO: 18
284 <211> LENGTH: 61
285 <212> TYPE: DNA
286 <213> ORGANISM: Artificial Sequence
288 <220> FEATURE:
289 <223> OTHER INFORMATION: Description of Artificial Sequence:AMP011S
290     Amplification Primer
292 <400> SEQUENCE: 18
293 aatttaatac gactcactat agggagaagg agaaaaagag ctattcgccg tgtccctctc 60
294 g                                                                    61
297 <210> SEQ ID NO: 19
298 <211> LENGTH: 22
299 <212> TYPE: DNA
300 <213> ORGANISM: Artificial Sequence
302 <220> FEATURE:
303 <223> OTHER INFORMATION: Description of Artificial Sequence:AMP012 PCR
304     Primer
306 <400> SEQUENCE: 19
307 gctattcgcc gtgtccctct cg                                          22
310 <210> SEQ ID NO: 20
311 <211> LENGTH: 21
312 <212> TYPE: DNA
313 <213> ORGANISM: Artificial Sequence
315 <220> FEATURE:
316 <223> OTHER INFORMATION: Description of Artificial Sequence:AMP013 PCR
317     Primer
319 <400> SEQUENCE: 20
320 ctccctaaagt cactcctaac g                                          21
323 <210> SEQ ID NO: 21
324 <211> LENGTH: 20
325 <212> TYPE: DNA
326 <213> ORGANISM: Artificial Sequence
328 <220> FEATURE:
329 <223> OTHER INFORMATION: Description of Artificial Sequence:Bump003 Bumper
330     Primer
332 <400> SEQUENCE: 21
333 ctgtgtccct atctgttaca                                          20
336 <210> SEQ ID NO: 22
337 <211> LENGTH: 22
338 <212> TYPE: DNA
339 <213> ORGANISM: Artificial Sequence

```

RAW SEQUENCE LISTING ERROR SUMMARY
PATENT APPLICATION: US/10/077,383

DATE: 07/23/2002
TIME: 13:06:18

Input Set : A:\-17-1.app
Output Set: N:\CRF3\07232002\J077383.raw

Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:9; N Pos. 1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20
Seq#:15; Xaa Pos. 2,3,4,5,6,7,8
Seq#:30; N Pos. 1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20
Seq#:33; N Pos. 1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18

VERIFICATION SUMMARY

PATENT APPLICATION: US/10/077,383

DATE: 07/23/2002

TIME: 13:06:18

Input Set : A:\-17-1.app

Output Set: N:\CRF3\07232002\J077383.raw

L:171 M:259 W: Allowed number of lines exceeded, <223> Other Information:
L:174 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:9 after pos.:0
L:252 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:15 after pos.:0
L:470 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:30 after pos.:0
L:515 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:33 after pos.:0